

Non-US LiteZ

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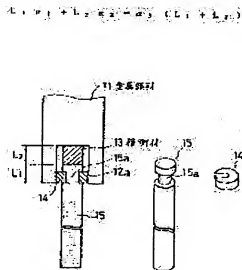
(54) METHOD FOR ENGAGING METALLIC MEMBER AND CERAMICS MEMBER

(57)Abstract:

PURPOSE: To avert the defect of a gas sealing between a metallic member and a ceramics member, the degradation in an electrical conductivity and loosening by interposing a buffer material of a specific size between the projecting or recessed engaging part at the front end of the metallic member and the engaging part of the ceramics member at the time of engaging both the engaging parts.

CONSTITUTION: A nut 14 for holding is inserted to the constructed part 15a of a ceramics sensor (ceramics member) 15 in the case of engaging, for example, a metallic holder (metallic member) 11 of a sensor for detecting the level of molten Al. The member 15 is then screwed to the recess 12 in the state of interposing the buffer material 13 in the bottom of the recess 12 of the member 11 to complete the engagement of the members 11 and 15. The buffer material 13 satisfying an equation is used in this case.

In the equation, L1 is the length of the engaging part of the member 15; L2 is the thickness of the buffer material 13,  $\alpha 1$ ,  $\alpha 2$ ,  $\alpha 3$  are respectively the coeffs. thermal expansion of the member 15, the buffer material 13, and the member 11. The trouble by a difference in the thermal expansion between the members 11 and 15 is eliminated in this way.



## LEGAL STATUS

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